MEMORANDUM FOR: All NWS Regional Headquarters, Regional Maintenance Specialists, Electronic Systems Analysts, and Electronics Technicians [Engineering Handbook (EHB)-13, Series II distribution]

FROM: W/OPS1 - John McNulty

SUBJECT: Transmittal Memorandum for EHB-13 Series II, Issuance 00-24

1. Material Transmitted:

Engineering Handbook No. 13 Series II, Advanced Weather Interactive Processing System (AWIPS), Section 4.0, AWIPS Contractor Interface Note 8, AT&T CSU/DSU and Cisco 2514 Router Relocation.

2. Summary:

AWIPS Contractor Interface Note 8 provides instruction on relocating the AT&T CSU/DSU and Cisco 2514 router from the Communications room to the CP rack in preparation for FTS 2001.

3. Effect on Other Instructions:

None.

AWIPS CONTRACTOR INTERFACE NOTE 8 (for Electronics Systems Analysts)
Bismarck, ND (BIS): KV
W/OPS12: FJZ

SUBJECT : AT&T CSU/DSU and Cisco 2514 Router Relocation

PURPOSE : To provide instructions for the relocation of the Cisco 2514 router and the AT&T CSU/DSU

AUTHORIZING DOCUMENT : NWS 626, Rev A

SECURITY LEVEL : N/A

EQUIPMENT AFFECTED : AWIPS communications processor (CP) rack. Rack # 2

SITES AFFECTED : All weather forecast offices (WFO)

REQUIRED ITEMS : CAT5 cable to connect the relocated CSU/DSU to the Telco RJ45 block, and to connect the relocated router to the office switches/hubs. 1 3/4 inch BUD filler panel P/N 44831

TOOLS AND TEST EQUIPMENT REQUIRED : Medium sized flat tip and Philip screwdrivers

TIME REQUIRED : Approximately 1 hour

EFFECT ON OTHER INSTRUCTIONS : None

VERIFICATION STATEMENT : This procedure was performed and verified at the Bismarck, ND (BIS) WFO

TECHNICAL SUPPORT : For questions or problems regarding these installation instructions or performing this procedure, please contact Franz Zichy at 301-713-1833 x128.

BACKGROUND

In anticipation of the transition to MCI/Worldcom FTS 2001 services, the regional enterprise router and the AT&T CSU/DSU at all WFO sites must be relocated from the communications room to the space allocated on the CP rack no. 2 (figure 1). The relocation will allow the sharing of the T1 Frame Relay access between AWIPS and the Enterprise Networks (figure 2). Once the AWIPS network is ready to transition to FTS 2001, and MCI technician will schedule a visit to the site and replace the AT&T CSU/DSU and TIU with a Larscom CSU/DSU.

PROCEDURE

Depending on the local office LAN configuration, it may be necessary to manufacture at least 3 cables. These cables connect the relocated CSU/DSUs to the Telco RJ45 block and to the two Ethernet ports on the office router. The cables will help reduce the communications down time to less than 5 minutes. If it is necessary to manufacture these cables, follow the procedure in part A. Skip to part B if no additional cables are required.

A. Cable Manufacturing Procedure

Before relocating the Cisco 2514 router and the CSU/DSU from the communications room to the CP rack, follow this cable manufacturing procedure.

1. Run 1 (if necessary) CAT5 cable under the floor tiles between the CP rack and the Telco RJ45 block, and 2 CAT5 cables between the CP rack and the office switches/hubs.

2. The CAT5 cable for the CSU/DSU will use pins 1, 2, 4, and 5 straight through. Crimp an RJ45 connector to both ends.

3. The 2 CAT5 cables that will run from the Ethernet ports to the office LAN switches/hubs can either be a standard cross-over or straight through cable. Verify existing cable before manufacturing new ones.

4. For the purpose of these procedures, the newly manufactured cables are identified as follows:

Cable A	CP rack to Telco RJ45 block
Cable B	CP rack to LAN switches/hubs (E0)
Cable C	CP rack to LAN switches/hubs (E1)

B. Router and CSU/DSU Relocation Procedure

1. At the front of the CP rack, remove the 3 1/2 inch BUD filler panel above the top most Cisco 4000 router.

2. In the communications room, remove the cables that connect to the router's Ethernet ports, and attach **cables B** and **C** to the switches/hubs.

3. In the communications room, power down and disconnect the Cisco 2514 router. Slide the router into the space of the CP rack where the BUD filler panel in step 1 was removed.

4. In the back of the CP rack, connect **cables B** and **C** to the Ethernet ports on the rear of the router.

5. In the communications room, power down and disconnect the AT&T CSU/DSU. Remove the office AT&T CSU/DSU from the communications room and place it on the shelf in the rear of the of the CP rack as shown figure 1.

6. Connect **cable A** between the relocated CSU/DSUs and the Telco RJ45 block.

7. Connect the appropriate cable between the CSU/DSU and Cisco 2514 router.

8. Plug in and power up the CSU/DSUs and Cisco 2514 router.

9. Once the units are powered up, test them to verify if all connections are functioning properly. For example, ping other devices within the WAN/LAN. Test both sides of the Ethernet ports to ensure that systems outside the local office are accessible.

10. If there is an opening above the 2514 Cisco router, cover it with a 1 3/4" BUD filler panel P/N 44831.

This completes the router and CSU/DSU relocation procedure.

Figure 1

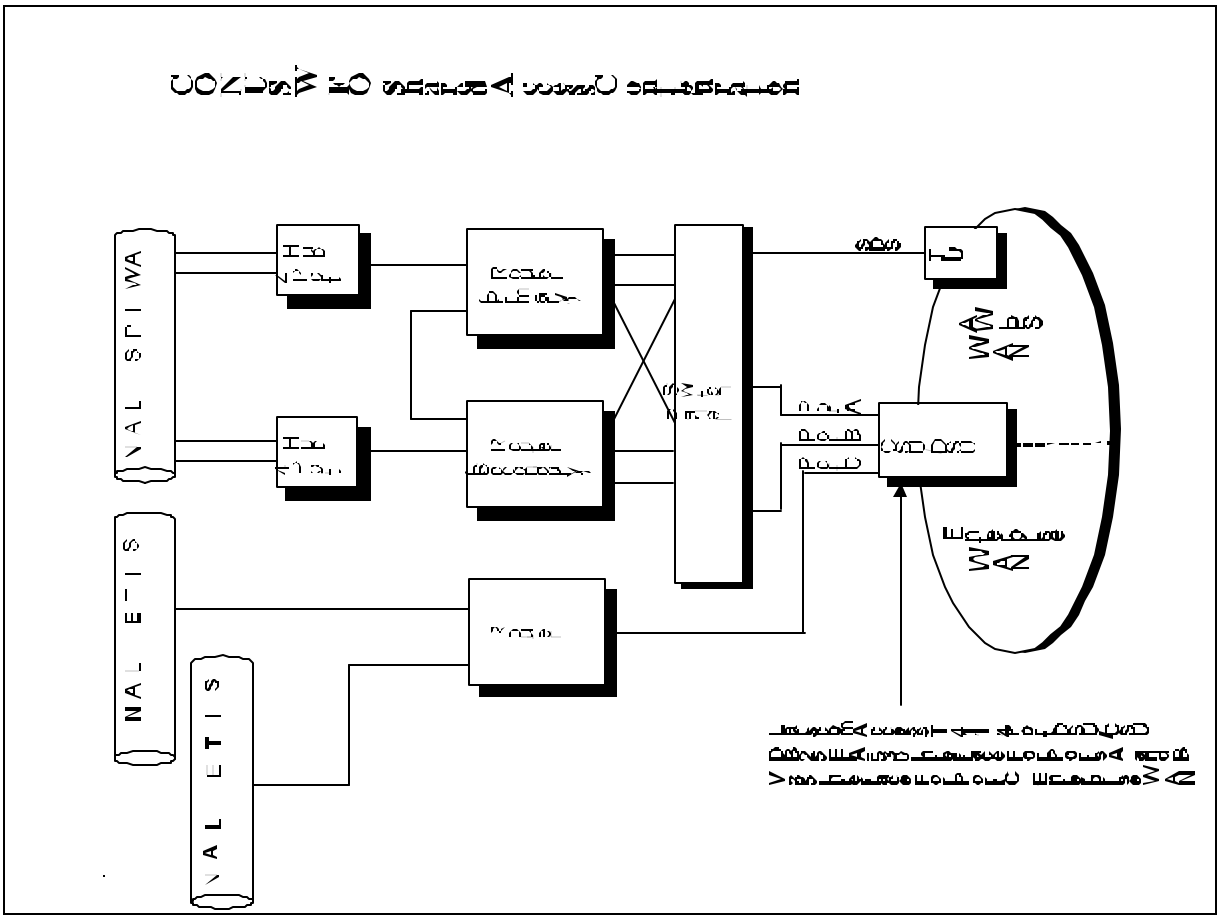

Figure 2

REPORTING MODIFICATION

Report the completed modification on a WS Form A-26 Maintenance Record, according to instructions in Engineering Handbook 4 (EHB-4), Engineering Management Reporting System (EMRS), part 2, and appendix H. A sample A-26 form is attached. As an additional guide, use the information in the table below.

Block #	Block Type	Information
5	Description	Perform Modification I.A.W. Contractor Interface Note 8
7	Equipment Code	AWIPS
8	Serial Number	001
15	Comments	Relocate CSU/DSUs and 2514 Cisco router
17a	Mod. No.	CI8

John McNulty
Chief, Maintenance, Logistics, and Acquisition Division

WS FORM A-26 (4/94)

WS FORM A-26 (4/94)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

ENGINEERING MANAGEMENT REPORTING SYSTEM
MAINTENANCE RECORD

Document Number: **G 49978**

General Information

1. Open Date	Time	2. Initials	3. Response Priority (check one)	4. Close Date	Time
12 / 26 / 00	0900	JMM	○ Immediate ○ Low ○ Routine ☒ Not Applicable	12 / 26 / 00	1000

5. Description

Relocate Equipment I.A.W. AWIPS Contractor Interface Note 8

Equipment Information

6. Station ID	7. Equipment Code	8. Serial Number	9. TM	10. AT	11. How Mal.
CTP	AWIPS	001	M	M	999

12. *EQUIPMENT OPERATIONAL STATUS TIMES*

a. Fully Operational	b. Logistics Delay	Partly Operational	c. All Other	d. Logistics Delay	Not Operational	e. All Other

13. *Parts Failure Information*

Block #	a. ASN	b. NSN	c. TM	d. AT	e. How Mal.	f. Qty.	g. Maint. Hrs.
1							
2							
3							
4							
5							

14. *Work Load Information*

Type	Staff Hrs.
a. Routine	
b. Non-routine	
c. Travel	
d. Misc.	1:00
e. Overtime	

Miscellaneous Information

15. Maintenance Comments

Relocated CSU/DSUs and 2514 Cisco Router I.A.W. AWIPS Contractor Interface Note 8.

16. Initials: **JMM**

17. *SPECIAL PURPOSE REPORTING*

a. Mod. No.	b. Mod./Act./Deact.Date	c.	d.	e.
CI8	12/26/00			

18. *CONFIGURATION MGMT. REPORTING (use as directed)*

ASN	Vendor Part Number (New Part)	Serial Number (Old Part)	Serial Number (New Part)